

09/673136

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ENGLISH TRANSLATION OF
AMENDED CLAIMS

We claim:

- 5 1. A dry microorganism culture which comprises at least one microorganism species in carrier-bound form, wherein the culture is present in the form of particles which
- 10 a) have a particle size of at least about 0.1 mm and
- b) comprise from about 10^8 to 10^{12} cfu/g of at least one microorganism species; and
- c) are compressed.
- 15 2. A microorganism culture as claimed in claim 1, wherein the particles have been compressed under the action of a linear force from about 5 to 15 kN/cm or a pressure from about 90 to 160 MPa.
- 20 3. A microorganism culture as claimed in claim 1 or 2, wherein the compressed particles comprise compacted broken material having a diameter of from about 0.1 mm to about 2 mm.
- 25 4. A microorganism culture as claimed in claim 1, wherein the compressed particles comprise tablets having a diameter of from about 2 to 50 mm and a ratio of diameter to thickness of from about 1:0.1 to about 10:1.
- 30 5. A microorganism culture as claimed in one of the preceding claims, wherein it comprises, as further component, an effervescent additive.
- 35 6. A microorganism culture as claimed in one of the preceding claims, wherein, as carrier, it comprises at least one matrix material for embedding the microorganism cells with or without at least one further cell-stabilizing additive.
- 40 7. A microorganism culture as claimed in one of the preceding claims, wherein it comprises at least one lactic-acid-producing bacterial species.

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8. A microorganism culture as claimed in claim 7, wherein the bacterial species is selected from bacteria of the genus *Lactobacillus* sp.
- 5 9. A process for producing a dry microorganism culture, comprising at least one microorganism species in carrier-bound form, which comprises
- 10 a) dissolving or suspending at least one substance suitable for forming a carrier in a liquid comprising at least one microorganism species,
- 15 b) drying the resultant mixture in a spray-dryer, for the spray-drying use being made of a conditioned dried gas having a dew point of less than about +5°C, heated to a temperature in the range of above about 80°C, and
- 20 c) removing the dried material from the spray dryer, this dried material having an exit temperature of from about 45 to 75°C.
10. A process as claimed in claim 9, wherein, in a further stage d), the dry material is subjected to a further drying at a temperature in the range from about 15 to 50°C in a gas atmosphere or in vacuo and/or at least one desiccant is added.
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11. A process as claimed in one of claims 9 and 10, wherein, as dry material, a powder concentrate having a content of viable microorganisms of from about $5 \cdot 10^8$ to $1 \cdot 10^{12}$ cfu/g is obtained.
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12. Dry compressed microorganism culture according to one of the claims 1 to 8, obtainable from a powder concentrate of a microorganism culture dried by a process of anyone of claims 9 to 11.
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13. A process for preparing a dry microorganism culture as claimed in one of claims 1 to 8, which comprises
- 40 i) producing a powder concentrate of the microorganism culture by carrier-bound spray-drying, carrier-bound freeze-drying or carrier-bound fluidized-bed drying,

- ii) with or without admixing the powder concentrate with one or more coformulants and
iii) compacting or tabletting this mixture.

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14. A process as claimed in claim 13, wherein the compacted powder concentrate from stage iii) is broken, with or without classification.

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15. A process for preparing a dry agglomerated microorganism culture, which comprises

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i) preparing a powder concentrate of the microorganism culture by carrier-bound spray-drying, carrier-bound freeze drying or carrier-bound fluidized-bed drying,

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ii) with or without admixing the powder concentrate with one or more coformulants and

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iii) agglomerating this mixture.

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16. A process as claimed in claim 13 or 15, wherein the spray-drying is performed as in one of claims 9 to 12.

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17. The use of a microorganism culture as claimed in one of claims 1 to 8 or prepared by a process of one of claims 9 to 16 as starter culture for foodstuffs and feedstuffs.

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18. A foodstuff or feedstuff obtainable by using a microorganism culture as claimed in one of claims 1 to 8 or prepared by a process of one of claims 9 to 16 as starter.

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